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**HOLLERITH
PUNCHED CARD CODE**

**U.S.
DEPARTMENT
OF
COMMERCE**

National
Bureau
of
Standards

CATEGORY: HARDWARE STANDARD
SUBCATEGORY: INTERCHANGE CODES
AND MEDIA

Foreword

The Federal Information Processing Standards Publication Series of the National Bureau of Standards is the official publication relating to standards adopted and promulgated under the provisions of Public Law 89-306, and under Office of Management and Budget Circular A-86. The entire series constitutes the FEDERAL INFORMATION PROCESSING STANDARDS REGISTER.

This series is used to announce Federal Information Processing Standards, and to provide standards information of general interest and an index of relevant standards publications and specifications. Publications that announce adoption of standards provide the necessary policy, administrative, and guidance information for effective standards implementation and use. The technical specifications of the standard are usually attached to the publication, otherwise a source of copies is cited.

Comments covering Federal Information Processing Standards and Publications are welcomed, and should be addressed to the National Bureau of Standards, Center for Computer Sciences and Technology, Office of Information Processing Standards, Washington, D.C. 20234. Such comments will be either considered by NBS or forwarded to the responsible activity as appropriate.

LEWIS M. BRANSCOMB, *Director*

Abstract

This publication provides a standard set of 128 hole patterns which represent the 128 characters of the Federal Standard Code for Information Interchange (ASCII) FIPS 1, in 12-row, 80 column, rectangular hole, "Hollerith" punched cards, or the subsets of ASCII as specified in FIPS 15, Subsets of the Standard Code for Information Interchange. It adopts one-half of the 256 hole patterns given in the American National Standard X3.26-1969, Hollerith Punched Card Code.

Key words: American Standard Code for Information Interchange; ASCII; card punch; card reader; data communications; data interchange; data processing; electric accounting machine; EAM cards; Federal Information Processing Standard; Hollerith punched card code; Hollerith punched cards; information interchange; information processing; punched cards.

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ANNOUNCING THE STANDARD FOR

HOLLERITH PUNCHED CARD CODE



Federal Information Processing Standards Publications are issued by the National Bureau of Standards under the direction of the Office of Management and Budget (OMB) in accordance with the provisions of Public Law 89-306 and OMB Circular No. A-86.

Name of Standard. Hollerith Punched Card Code. (FIPS 14)

Category of Standard. Hardware Standard, Interchange Codes and Media.

Explanation. This standard specifies the representation of the Federal Standard Code for Information Interchange (FIPS 1), in 3¼ inch wide, 12-row, rectangular hole, "Hollerith" punched cards used in Federal information processing systems, communications systems, and associated equipments.

Approving Authority. Office of Management and Budget.

Maintenance Agency. Department of Commerce, National Bureau of Standards (Center for Computer Sciences and Technology).

Cross Index.

- a. American National Standard X3.26 1970, Hollerith Punched Card Code.
- b. FIPS PUB 1, Code for Information Interchange.
- c. FIPS PUB 7, Implementation of the Code for Information Interchange and Related Media Standards.
- d. FIPS PUB 13, Rectangular Holes in Twelve-Row Punched Cards.
- e. FIPS PUB 15, Subsets of the Standard Code for Information Interchange.
- f. American National Standard X3.11-1969 (Revised), Specifications for General Purpose Paper Cards for Information Processing.
- g. American National Standard X3.21-1967, Rectangular Holes in Twelve-Row Punched Cards.

Applicability. Generally applicable to the representation of character coded information in 3¼ inch wide, 12-row, rectangular hole, "Hollerith" punched cards used with data processing, communications and related equipments. This standard coding does not apply to other types of punched cards, such as those with round holes. It is not applicable to "edge-punched" cards, whose code holes resemble those used in perforated tape. It is applicable when subsets of the standard code are used as specified in FIPS PUB 15, Subsets of the Standard Code for Information Interchange.

Implementation Schedule. All applicable equipment ordered on or after the date of this FIPS PUB must be in accordance with this standard or a subset thereof as specified by FIPS 15 unless a waiver has been obtained in accordance with the procedure described below. Exceptions to this standard are made in the following cases:

- a. For equipment installed or on order prior to the date of this FIPS PUB.
- b. Where procurement actions are into the solicitation phase (i.e., Request for Proposals or invitation for Bids have been issued) on the date of this FIPS PUB.
- c. Where 48 character punched card equipment is leased to replace like equipment and where such action satisfies systems requirements and results in reduced costs to the government (e.g., punched card equipment obtained through third party leasing agreements or Government-wide procurement contracts).

Waiver Procedure. Heads of agencies may waive the provisions of the implementation schedule. Proposed waivers relating to the procurement of punched card equipment will be coordinated in advance with the National Bureau of Standards. Letters should be addressed to the Director, Center for Computer Sciences and Technology, National Bureau of Standards, Washington, D. C. 20234. They should describe the nature of the waiver and set forth the reasons therefor.

Sixty days should be allowed for review and response by the National Bureau of Standards. The waiver is not to be made until a reply from the National Bureau of Standards is received; however, the final decision for granting the waiver is a responsibility of the agency head.

Specifications. This Federal standard adopts only that part of American National Standard X3.26 1970, Hollerith Punched Card Code, which assigns hole patterns to the 128 characters of the Federal Information Processing Standard Code for Information Interchange (FIPS 1). The applicable code assignments are specified in Columns 0 through 7 of Code Table 2.1, of the American National Standard X3.26 1970.

Qualifications. Variations such as character substitutions or additional hole patterns will result in a code which does not conform to the standard. Such variations, if required by agencies having special requirements, must be coordinated with the National Bureau of Standards and waived by the Agency head prior to final agency procurement authorization. This Federal standard does not include the 128 additional hole patterns contained in Columns 8 through 15 of Code Table 2.1, of the American National Standard X3.26-1970.

Special Information. The size and location of rectangular holes in twelve-row, 3 $\frac{1}{4}$ inch wide punched cards are specified in FIPS 13.

Where to Obtain Copies of the Specifications of the Standard.

a. Federal Government activities should obtain copies from established sources within each agency. When there is no established source, purchase orders should be submitted to the General Services Administration, Specifications Activity, Printed Materials Supply Division, Building 197, Washington Navy Yard Annex, Washington, D.C. 20407. Refer to Federal Information Processing Standard Number 14 (FIPS 14). (Price 55 cents a copy).

b. Others may obtain copies from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Refer to American National Standard X3.26-1970, Hollerith Punched Card Code. (Price \$3.25 a copy. Discounts are available on quantity orders. See ANSI catalog.)